BELLSOUTH

W. W. (Whit) Jordan
Vice President-Federal Regulatory

Suite 900
1133-21st Street, N.W.
Washington, D.C. 20036-3351
202 463-4114
Fax: 202 463-4198
Internet: jordan.whit@bsc.bls.com

June 25, 1998

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street. NW, Room 222
Washington, D.C. 20554

RE: CC Docket No. 97-160

Dear Ms. Salas:

Today, Jim Maden, Mike Dirmeier and Dave Newton from Georgetown Consulting and Pete Martin, Daonne Caldwell and the undersigned, all representing BellSouth, met with Brad Wimmer, Bryan Clopton, Steve Burnett, Katie King, Emily Hoffnar, Richard Smith, Adrian Wright, Betti Ricketts, Abdel Eqab, and Dave Ward of the Common Carrier Bureau in connection with the above referenced proceeding. During the meeting, BellSouth responded to questions from the Commission staff regarding inputs to cost proxy models used for determining universal service support and discussed the attached material.

Please call me if you have any questions.

Yours truly,

William (Whit) Jordan
Vice-President – Federal Regulatory

Attachment

cc: Brad Wimmer, Bryan Clopton, Steve Burnett, Katie King, Emily Hoffnar, Richard Smith, Adrian Wright, Betti Ricketts, Abdel Eqab, Dave Ward

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Federal-State Joint Board on	)	CC Docket No. 96-45
Universal Service	)	
	)	
Forward-Looking Mechanism	)	
for High Cost Support for	)	CC Docket No. 97-160
Non-Rural LECs	)	

Presentation to the Staff of the Commission

Prepared by

Georgetown Consulting Group, Inc.

June 24, 1998

HAI R5.0a Default-Tennessee Result

Page 13 of Georgetown Report

		Loop	Agg. Switching	Total
	Default result - BellSouth Tennessee	$ 15.47	$ 4.67	$ 20.14
	Inputs Producing Cost Significantly Above Default			
1.	NID & Drop	$ 1.83	$ (0.05)	$ 1.78
3.	Distribution Investment	2.05	(0.02)	2.03
2.	Terminal & Splice	(0.93)	0.04	(0.89)
9.	DLC	1.17	(0.02)	1.15
4.	Copper Feeder Investment	0.37	(0.07)	0.30
12.	Expense Factors	0.84	1.47	2.31
7.	Structure Sharing	2.68	0.04	2.72
6.	Structure Placement	0.51	0.04	0.55
	Inputs Producing Cost Significantly Below Default			
5.	Fiber Feeder Investment	(0.44)	0.01	(0.43)
8.	Copper & Fiber Fill Factors	(0.81)	0.02	(0.79)
	Other Inputs			
10.	Interoffice Investment	(0.02)	0.01	(0.01)
11.	Switching Factors	(0.02)	0.19	0.17
13.	Cost of Capital	1.48	0.41	1.89
14.	Depreciation Lives	1.31	0.50	1.81
	Cumulative Effect 1-14 (Sum)	$ 10.02	$ 2.57	$ 12.59
	BST-Territory Specific HAI R5.0a Application	$ 24.30	$ 6.48	$ 30.78

NOTE

Components of above cost categories are contained in Exhibit 1 to GCG Report attached to BellSouth's Reply Comments.

HAI R5.0a Default-Tennessee Result

NID and Drop Effects - Summary

		Loop	Agg. Switching	Total
1.	NID Adjustments	0.23	(0.00)	0.23
2.	Drop adjustments Excl GCG Sharing Change	0.93	(0.03)	0.90
3.	Add'l effect of drop sharing change	0.67	(0.02)	0.66
4.	NID and Drop	$ 1.84	$ (0.05)	$ 1.79

HAI R5.0a
NID Costs (Input B-1)

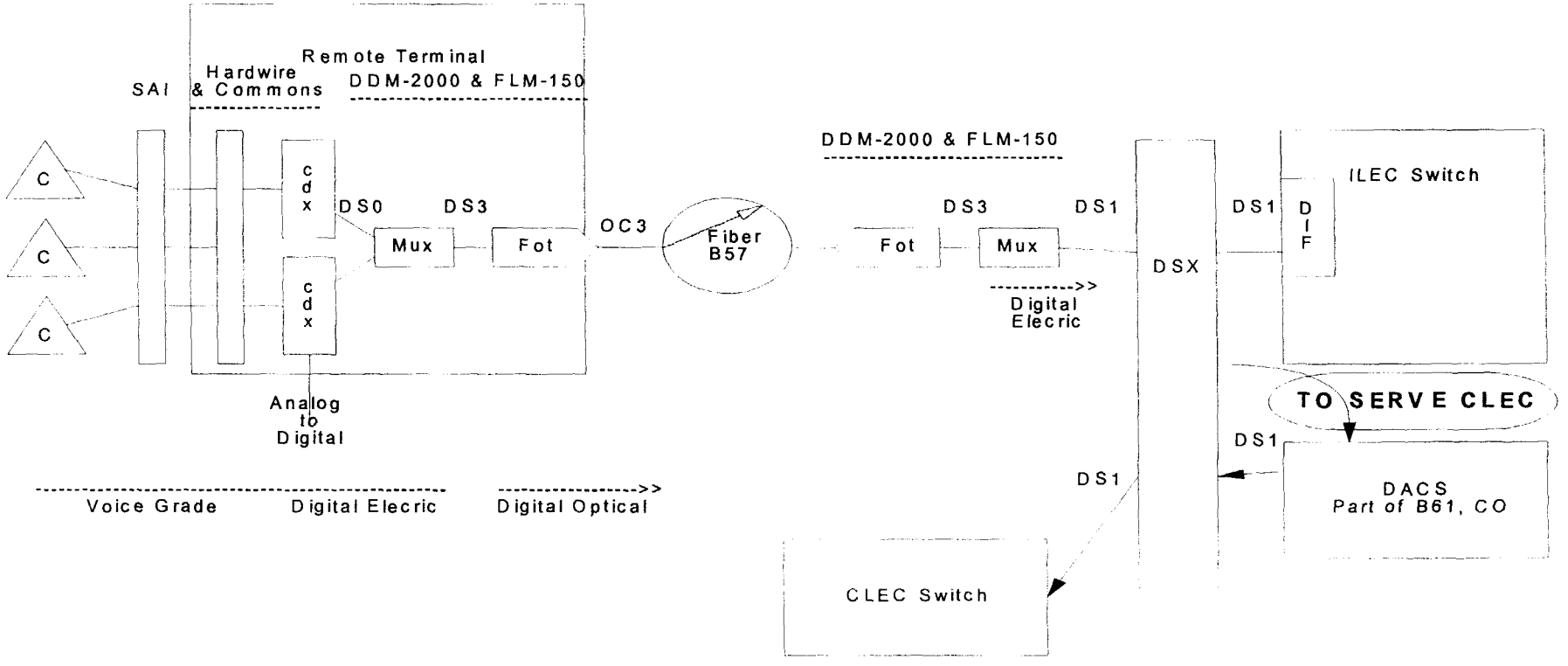
	Recommended	HAI R5.0a Default Res	HAI R5.0a Default Bus	
NID without protector				
1. Catalog price for NID, including one protector and interface	$ 14.76			(a)
LESS:				
2. Catalog price of one protector	3.28			
3. Catalog price of Additional interface	4.34			
4. Total cost	$ 7.14	$ 10.00	$ 25.00	Ex. 3-4
Protection block, per pair				
5. Catalog price of one protector	$ 3.28			L.2
6. Catalog price of Additional interface	4.34			L.3
7. Protection block	$ 7.62	$ 4.00	$ 4.00	Ex. 3-5

(a) "Per catalog - Interface OS 1 line equipped with three 350 adapters, two C ground straps, one entrance bridge and one station protector."

DROP - Fixed Contract Instalation Price
for Buried Drop, 0 - 500 ft.

Alabama	$ 114.60	Ex. 17-1
Florida	73.57	
Georgia	120.88	
Kentucky	144.47	
Louisiana	113.01	
Mississippi	133.31	
N. Carolina	149.56	
S. Carolina	134.32	
Tennessee	118.25	

Integrated Digital Loop Carrier w ith Service to Competitive Carriers



SAI = Serving Area Interface
cdx = CODEC = B62 channel units
Mux = Multiplixer
FOT = Fiber optic terminal
DSX = Digital Cross Connect Bay
DIF = Digital Interface
DACS = Digital Cross Connect System

B61 = Cabinet, Hardwire & Commons in RT, and MUX/FOT in RT and CO [DDM-2000, FLM-150]. Also, an allocated cost of DACS equipment required to provide service to CLECs.

B68 = Cost of additional line modules = everty hing that is in B52 excluding cabinet cost, plus additional [deferable] DS-1 cards.

B62 = Channel unit investment = Codec

B65 = 4 fibers per RT

HAI R5.0a
DLC Configurator

Cabinet cost

1. Obtain cost for DLC cabinets in various available sizes:

DS0 Capacity		
SLC 96	Litespan	DISC*S
192	672	480
384	1,344	1,344
768	2,016	2,016
1,536		

2. HAI R5.0a implementations of DLC configurations depends on:

   - Number of lines in cluster served by DLC
   - Number of lines per DLC module
   - DLC cross-over from low to high density.

   Determine, from actual operation of model for given company and territory, along with recommended inputs for number of lines per module and DLC cross-over, the number of:

   - initial DLC modules
   - additional DLC modules.

3. From the above, model the number and size of each type of DLC cabinet, based on algorithm that produces most efficient, lowest cost for all applied DLC cabinets.

Vendor #1 Hardwire and Common at Remote Terminal

	Unit Cost	Units	Material Cost	
4. Power converter unit				
5. Line interface unit				
6. Central processor unit				
7. Signal processor unit				
8. Transmit/receive unit				
9. Maintenance unit				
10. Fuse & alarm panel				
11. RT Hardwire shelf				
12. Total Hardwire & Commons needed in RT but not in CO			$ 25,195	Ex. 11-6

Vendor #2 Hardwire and Common at Remote Terminal

		Unit Cost	Units	Material Cost	
	Hardwire				
13.	FA CBA1 (NB:710)				
14.	Univeral fuse & alarm panel				
15.	Univeral alarm cable kit #1				
16.	Intershelf cable kit - bay #1				
17.	Common control shelf assembly				
18.	Total Hardwire needed in RT but not in CO			$ 3,424	
	Commons (RT)				
19.	Bank control unit Ver 2				
20.	Bank power supply				
21.	Metallic test access unit				
22.	Communications interface unit				
23.	Ringing generator unit (RT only)				
24.	Total Vendor #2 Commons needed in RT but not in CO			$ 2,894	
25.	Total Vendor #2 hardwire and common equipment at RT			$ 6,318	Ex. 11-7

Vendor #3 Hardwire and Common at Remote Terminal

		Unit Cost	Units	Material Cost	
	Hardwire				
	RT hardwired equipment				
26.	Bulk power arrangement				
	RT Common plug-ins (Set)				
27.	FPC - special services				
28.	Total Hardwire & Commons needed in RT but not in CO			$ 10,279	Ex. 11-7

DLC - Cost of Multiplexer at RT and in CO

	Functional Name	Unit Cost	Units	Material Cost	Applied Percentage	Applied Cost	
	Vendor #4 configurator						
29.	Bay e/w 1 OC-3 shelf and heat baffle						
30.	Full Electrical Cabling						
31.	Lot Fiber Jumpers						
32.	Hardwired			$ 910			
33.	OC-3 OLIU w/TSI (LR)						
34.	Synchronous timing generator						
35.	System controller (R8-R9)						
36.	Overhead controller (R8-R9)						
37.	Commons sub-total			$ 9,232			
38.	VT-to-STS-1 multiplexer						
39.	DS1 LS Card w/PM						
40.	DS1 & low-speed mux sub-total			$ 6,194			
41.	Hardwire, commons and Mux			$ 16,336	70.0%	$ 11,435	
	Vendor #5 configurator						
42.	ADM Shelf						
43.	Heat baffle/fiber tray						
44.	Hardwired			$ 285			
45.	Alarm and orderwire unit (Enhanced)						
46.	High speed OC-3 LR Optics (1310 nm), SC, Hardened						
47.	High speed switch/overhead access						
48.	Microprocessor for TSA Enh and 150+ config						
49.	Power unit						
50.	Supervisory - TL 1/X.25 for TSA Enh and 150+ Config						
51.	Timing control unit						
52.	Time slot assignment VT1.5, STS-1						
53.	Commons subtotal			$ 12,963			
54.	Low speed 4X DS1 w/ far end Path DS1 PM						
55.	Low speed switch - DW1/OVTG						
56.	Middle speed Mux/Demux for DS1						
57.	DS1 & lowspeed mux subtotal			$ 4,905			
58.	Com plug in			$ 18,153	30.0%	$ 5,446	
						$ 16,881	Ex. 11-7

Vendor #2 - Cost of Multiplexer at RT and in CO

		Unit Cost	Units	Material Cost	
	Multiplexer (Common control assembly)				
	Common optics group				
59.	Optical receiver unit				
60.	Optical transmitter unit				
61.	SONET formatter unit				
	Common equipment group				
62.	Timing control univ, ver. 2				
63.	Terminal control processor, Ver. 2				
64.	System backup memory, Ver. 2				
65.	Datalink controller & tone generator				
66.	Time slot interchanger, Ver. 2				
	Common support group (power, maintenance & test access, alarm control & reporting)				
67.	Common power supply				
68.	Alarm control unit, Ver. 2				
69.	Maintenance & test interface				
70.	Total DLC Vendor #2 multiplexer			$ 24,258	Ex. 11-7

Vendor #3 - Cost of Multiplexer at RT and in CO

		Vendor #4	Vendor #5		
71.	Unmelded costs per above	$ 16,336	$ 18.153		
72.	Less: Deferrable card adjustment				
73.	Adjusted unmelded costs				
74.	Applied percentage	0.70	0.30		
75.	Melded cost			$ 14,476	Ex. 11-8

Digital Cross Connect System at Central Office

		Price	DS0 capacity	DS1 capacity	Price per DS1	
76.	Lucent		61,888	2,579		
77.	Tellabs		24,576	1,024		
78.	Melded cost per DS1				$ 502	to L.81

	DACS	Low density	Vendor #1	Vendor #2
79.	VG capacity	192	672	224
80.	Number of ports required on the DACs	16	56	19
81.	Melded cost per DS1 port	$ 502	$ 502	$ 502
82.	Assumed percentage CLEC penetration	20.0%	20.0%	20.0%
83.	Material cost	$ 1,606	$ 5,622	$ 1,874
		Ex. 11-8	Ex. 11-7	Ex. 11-7

Common equipment per added line module

Vendor #1

84.	Total Hardwire & Commons needed in RT but not in CO	$ 25,195	L.12
85.	DACS	5,622	L.83
86.	Total	$ 30,817	Ex. 11-9

Vendor #2

87.	Total Vendor #2 Commons needed in RT but not in CO	$ 2,894	L.24
88.	DACS	1,874	L.83
89.	Total	$ 4,768	Ex. 11-9

Vendor #3

90.	Hardwire, commons and deferrable DS-1 cards in RT		
91.	DACS and deferrable DS-1 cards in CO		
92.	Total	$ 14,291	Ex. 11-9

Note: The amount in the last "bullet" on page Ex. 11-9 should be $14,291. The $2,809 listed on that page provides for DACS and additional DS-1 cards for the CO, but not for the RT.

HAI R5.0a
Copper Cable Material Costs

	Size	Recommended Gauge	Material Cost	Average Installed Cost (2)	Installation Factor	Default Gauge	Material Cost (1)	Installed Cost (2)	Installation Factor
Interpolated costs									
1.	6	26	$ 0.19	$ 1.29	6.63	24	$ 0.25	$ 0.63	2.50
2.	12	26	0.22	1.44	6.62	24	0.30	0.76	2.50
Known costs									
3.	25	26	0.27	1.79	6.62	24	0.48	1.19	2.50
4.	50	26	0.38	2.52	6.62	24	0.65	1.63	2.50
5.	100	26	0.55	3.64	6.62	24	1.00	2.50	2.50
6.	200	26	0.94	6.22	6.62	24	1.70	4.25	2.50
7.	300	26	1.30						
8.	400	26	1.61	10.66	6.62	26	3.60	6.00	1.67
9.	600	26	2.42	16.03	6.62	26	4.65	7.75	1.67
10.	900	26	3.57	23.64	6.62	26	6.00	10.00	1.67
11.	1,200	26	4.78	31.66	6.62	26	7.20	12.00	1.67
12.	1,500	26	5.93						
13.	1,800	26	7.12	47.15	6.62	26	9.60	16.00	1.67
14.	2,100	26	8.44						
Interpolated costs									
15.	2,400	26	9.54	63.18	6.62	26	12.00	20.00	1.67
16.	2,700	26	10.73						
17.	3,000	26	11.93	78.98	6.62	26	13.80	23.00	1.67
18.	3,600	26	14.31	94.78	6.62	26	15.60	26.00	1.67
19.	4,200	26	16.70	110.57	6.62	26	17.40	29.00	1.67
HAI Input Numbers									
	Distribution			B-10				B-10	
	Feeder			B-56				B-56	

(1) Exhibit 4 to Staff Report to Louisiana Public Service Commission,
LPSC Docket No. U-20883 (Subdocket A),
FCC Docket No. 96-45 and 97-157.

(2) Recommended installed cost includes terminal and splice, and therefore recommended input for terminal and splice is $0.
Default installed cost does not include terminal and splice.

HAI R5.0a
Labor Rates

	Alabama	Florida	Georgia	Kentucky	Louisiana	Mississippi	N. Carolina	S. Carolina	Tennessee	
1. Hourly labor rate assumed in HAI R5.0a default inputs	$ 35.00	$ 35.00	$ 35.00	$ 35.00	$ 35.00	$ 35.00	$ 35.00	$ 35.00	$ 35.00	
2. Percentage of hourly rate affected by Regional Labor Adjustment ("RLA")	0.571	0.571	0.571	0.571	0.571	0.571	0.571	0.571	0.571	(1)
3. Hourly rate affected by RLA	$ 19.99	$ 19.99	$ 19.99	$ 19.99	$ 19.99	$ 19.99	$ 19.99	$ 19.99	$ 19.99	
4. 1 - Line 9	0.420	0.320	0.380	0.270	0.280	0.420	0.490	0.450	0.300	
5. Regional labor adjustment	$ (8.39)	$ (6.40)	$ (7.59)	$ (5.40)	$ (5.60)	$ (8.39)	$ (9.79)	$ (8.99)	$ (6.00)	
6. Hourly labor rate in default	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	
7. Loaded hourly labor rate used by AT&T / MCI application of HAI R5.0a	**$ 26.61**	**$ 28.60**	**$ 27.41**	**$ 29.60**	**$ 29.40**	**$ 26.61**	**$ 25.21**	**$ 26.01**	**$ 29.00**	
8. AT&T/MCI labor rate, % of BST cost	65%	70%	67%	73%	72%	65%	62%	64%	71%	
9. Regional Labor Adjustment factor ("RLA")	0.580	0.680	0.620	0.730	0.720	0.580	0.510	0.550	0.700	
10. BellSouth regional hourly labor rate (1997 - 1999)	**$ 40.80**									

(1) Percentage labor content varies by type of activity. See Hatfield R5.0a Input Portfolio Section 7.

BellSouth Telecommunications Inc.

Employee Totals

1991	76,485
1992	76,990
1993	74,218
1994	70,110
1995	65,646
1996	59,569
1997	54,085
April 1998	55,035
Reduction: 1991 to April 1998	21,450

HAI R5.0a
Expense Factors

	Alabama	Florida	Georgia	Kentucky	Louisiana	Mississippi	N. Carolina	S. Carolina	Tennessee	Total
1. Network operations expense per line, Amount disallowed by 50% default input	$ 1.60	$ 1.50	$ 1.53	$ 1.54	$ 1.46	$ 1.66	$ 1.56	$ 1.77	$ 1.40	
2. ARMIS expense analysis, Cost per month disallowed	$ 1.72	$ 2.55	$ 2.17	$ 1.30	$ 1.90	$ 1.52	$ 2.24	$ 1.80	$ 1.43	
3. Total monthly disallowance	$ 3.32	$ 4.05	$ 3.70	$ 2.84	$ 3.36	$ 3.18	$ 3.80	$ 3.57	$ 2.83	
4. Total annual disallowance ($000s)	$ 78,443	$ 317,192	$ 192,636	$ 42,812	$ 92,835	$ 48,198	$ 115,477	$ 62,346	$ 96,637	$ 1,046,575

										168-company average	Default Input	Input Number	
5. Network operations expense per line	$ 3.20	$ 3.00	$ 3.06	$ 3.09	$ 2.92	$ 3.33	$ 3.13	$ 3.54	$ 2.80	$ 3.08	$ 1.56	B-186	Ex. 14-10
6. Digital electronic switching expense, Percent of Investment	4.90%	5.72%	5.52%	6.26%	5.75%	4.74%	5.15%	4.97%	5.68%	5.70%	~~5~~.69% 2.69	B-187	Ex. 14-16
7. Circuit equipment expense, Percent of Investment	2.00%	1.96%	2.29%	1.97%	2.31%	1.77%	2.46%	1.93%	1.92%	1.98%	1.53%	B-188	Ex. 14-20

Notes

L.5 Default input is network operations factor of 50%. The average expense per line for the 9-state BellSotuh region is $3.12. Therefore, the default input factor of 50% results in an average equivalent input of $1.56 per line per month.

Number of loops	1,968,210	6,520,381	4,343,728	1,255,189	2,305,079	1,264,008	2,534,578	1,455,585	2,846,289

Tennessee - HAI R5.0a
Expense Analysis
($000s)

	Category	1996 ARMIS Expense	HAI R5.0a Expense	
1.	Public telephone terminal eqp't	$ 1,999	$ 1,344	
2.	Buildings	37,709	11,062	
3.	Poles	11,970	5,289	
4.	Aerial cable	41,473	18,950	
5.	Buried cable	43,429	38,615	
6.	Underground cable	6,048	2,032	
7.	Operator systems	3,419	917	
8.	Conduit systems	551	9,676	
9.	Terminal & drop		9,894	(1)
10.		$ 146,598	$ 97,779	
11.	Reduction in cost		$ 48,819	
12.	Number of loops		2,846,289	
13.	Reduction in cost, per month per loop		$ 1.43	

(1) Terminal & drop expenses are included but not separately stated in the ARMIS values for aerial, buried and underground cable. They are separately computed in HAI Model.